Urban Air Toxics Strategy

September 1, 1998

The Air Toxics Problem

- **The emission of toxic substances into the air can be damaging to human health and to the environment.**
- **Health effects include cancer and rapid onset of sickness, such as nausea or difficulty in breathing. Other less measurable effects include immunological, neurological, reproductive, developmental, and respiratory problems.**
- **Pollutants deposited onto soil or into lakes and streams affect ecological systems and eventually human health through consumption of contaminated food**

The Clean Air Act Calls For:

- Step one: Broad toxic emission reductions from MACT standards and significant reductions from other programs particularly the mobile source program
- Step two: Additional reductions incorporating information developed on risks:
  - Residual risk standards
  - Urban air toxics strategy for area sources
  - Mobile source study and standards

National Reductions in Air Toxics

- There have been significant reductions in toxic air pollutants since 1990
  - Stationary source regulations have reduced air toxics by over 1 million tons per year from 1990 levels
  - Mobile source requirements also reduce air toxics
    - Lead phaseout from gasoline
    - Limits on gasoline volatility
    - Reformulated gasoline
    - Limits on diesel sulfur
    - New vehicle emission standards
    - Inspection and maintenance programs

Air Toxics in Urban Areas

- Large numbers of people are potentially exposed to complex mixtures of pollutants
- There are multiple sources contributing to elevated concentrations
- There are sensitive populations, e.g., children, elderly, and people with existing respiratory problems
- There tend to be larger percentages of minority and low income populations in urban areas

Air Toxics in Urban Areas

- Need to develop better science and information on the exact nature and magnitude of the air toxics problem in urban areas
- Need to respond to the perception that risks are higher in urban areas
  - If risks are not high, EPA will help communicate this message
  - If the risks are shown to be high, EPA is committed to working with State and local communities to address these risks to improve the livability of cities

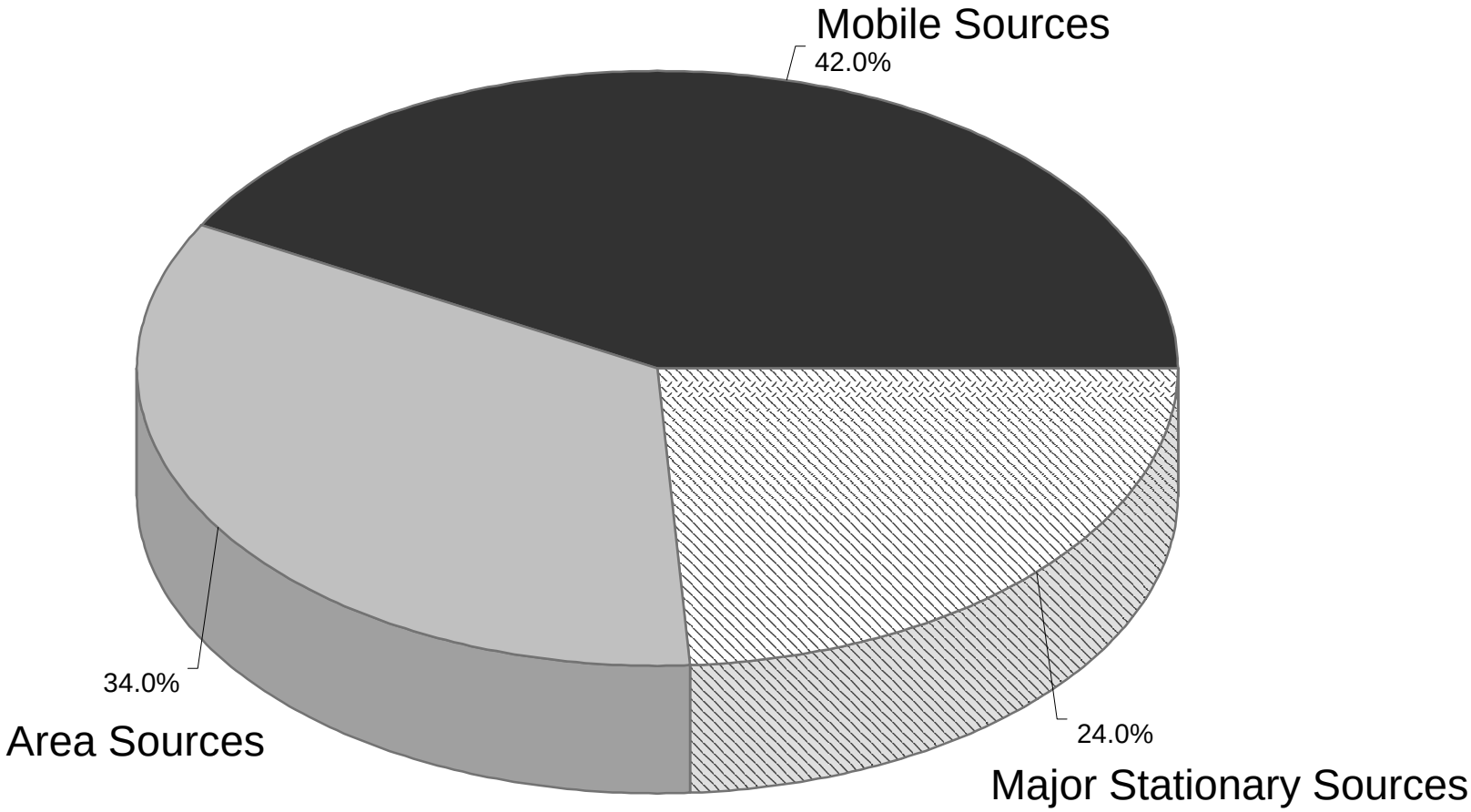
The Lead Example

- Identified significant public health risks associated with lead emissions especially in urban areas
- Urban areas had multiple sources of lead emissions, including leaded gasoline, secondary lead smelters, and petroleum refineries
- Successfully reduced exposures by setting standards that addressed emissions from both stationary and mobile standards

Plan for Developing Urban Strategy

- Define the air toxics situation for urban areas in a comprehensive manner
- Improve our understanding of the risk associated with urban air toxics
- Work with State and local governments on developing urban strategies for their communities
- Reduce the risks from urban air toxics through national and local actions (short and long term)
- **Consent Decree: Draft Strategy - 8/31/98; Final Strategy - 6/18/99**

1993 Air Toxics Emission Inventory (3.7 million tons)



Understanding Risks from Urban Air Toxics

- Develop more detailed science on the health effects associated with air toxics
- Develop more detailed science on the multimedia environmental effects of air toxics
- Develop better tools and data to characterize the full range of risks from air toxics
  - Increased air quality monitoring
  - New models for estimating risks
  - Tools for estimating emission inventories
  - Risk assessments

Working with State and Local Governments

- Work together on understanding the nature and causes of urban air toxics problem
- Identify Federal and local control actions to address the problem
- Work with local communities and groups to:
  - address health risks
  - promote environmentally sound urban redevelopment
  - minimize regulatory burden

Reducing Risks through Near- and Long-Term Actions

- **Plan to improve research and data on air toxics (emissions, modeling, monitoring, effects) to inform near- and longer-term actions**
- **Work with stakeholders to develop strategy more fully**
- **Present specific actions for area sources and mobile sources over next few years**
- **Build toward urban air toxics programs where updated information on monitoring and risks help focus future Federal, State and local actions**

Included in Draft
Urban Air Toxics Strategy

Published for public comment:

- **Draft list of 33 air toxics of concern**
- **Draft list of 34 area source categories for emission standards**
- **Schedule for actions on mobile source controls**

Urban Air Toxics Strategy

- Reductions in many of the list of 33 air toxics will also help reduce levels of other pollutants such as ozone and PM in urban areas
- Since 1990, urban areas have made great progress in cleaning their air and stimulating economic growth
- From 1990-1995:
  - There has been a net gain of 2.2 million jobs in nonattainment areas which are required to achieve the greatest air quality improvements.
  - 63% of those areas had average annual employment growth rates greater than that of their region of the country.
- EPA is committed to working with State and local communities to ensure continued progress in reducing pollution without impacting economic growth.
  - Clean Air Brownfields Project

Projected Timeline of Actions

- **1998 - Public Input and Strategy revision**
  - Continue collaboration with the State and local governments and other stakeholders to develop comprehensive urban air toxics program (work continues throughout timeline 1998 - 2003)
  - Work with stakeholders to refine strategy
  - Complete revised mobile source risk study
- **1999 - Tools and information development**
  - Initiate risk analyses for urban areas
  - Assess emission reductions from 1990 base year
  - Add 17 new air monitoring sites, expand emission inventories
  - Propose any additional mobile source rules
  - Summarize national research program and issue status report to Congress

Projected Timeline of Actions

- **2000- Mobile source controls, Risk characterization**
  - Adopt highway vehicle rules if appropriate
  - Complete national screening model (CEP II)
  - Add up to 40 new air monitoring site
  - Agreements on State and local elements
- **2001- State program enhancement, localized risk**
  - Further rules if needed to support State and local urban air toxics program (in addition to standards)
  - Complete risk assessment model for local application (TRIM)

Projected Timeline of Actions

- **2002 - Risk management, emission standards, program review & adjustments**
  - Issue guidance for State and local areas on the use of risk assessment, air monitoring, modeling, emission inventories, and control strategies
  - Adopt area source emission standards for 17 new categories
  - Begin reporting to public on risk to communities

Projected Timeline of Actions

- **2003 on - Program implementation, review & adjustment**
  - State and local governments upgrade programs to use the tools and guidance to characterize and address local air toxics problem
  - Continued research in improving understanding of health and environmental effects and risks associated with air toxics including improved models, emission estimating tools, and monitoring strategies
  - Reports to Congress on progress in meeting goals
  - Adopt area source standards for remaining categories
  - Adjustments to Federal, State and local programs as necessary to focus urban air toxics strategies